

SECRET**PRIORITY**

S E C R E T 121925Z MARCH 68 CITE [] 3216. 1968 MAR 12 20 08Z 25X1
 PRIORITY [] 25X1
 ATTN: [] OUT 64562

SUBJ: TELEMETRY OUTPUT DATA RECORDED FROM MISSIONS FLOWN BY THE SR-71 RECONNAISSANCE SYSTEM.

1. THE SR-71 VEHICLE CONTAINS A MISSION RECORDER SYSTEM (MRS) WHICH MONITORS VEHICLE AND SENSOR DATA FOR AN ENTIRE MISSION. THIS DATA IS NECESSARY FOR PRECISE MENSURATION IN SUPPORT OF SECOND AND THIRD PHASE PRODUCT EXPLOITATION.

2. [] IS NOT AWARE OF AN OPERATIONAL PROCEDURE WHICH PROVIDES FOR THE DISSEMINATION OF THE MRS DATA TO THE CUSTOMERS RECEIVING THE IMAGERY. TO ELIMINATE THIS DEFICIENCY, IT IS REQUESTED THAT A REQUIREMENT BE LEVIED WHICH PROVIDES FOR THE RECEIPT AT [] OF MRS DATA FOR EACH OPERATIONAL SR-71 MISSION. 25X1

3. THE DATA SHOULD BE RECEIVED AT [] APPROXIMATELY TEN HOURS BEFORE THE IMAGERY SO THAT THE DATA CAN BE PROCESSED THROUGH IN-HOUSE COMPUTER PROGRAMS. A METHOD SHOULD BE AVAILABLE FOR CORRELATING THE DATA TO THE IMAGERY EITHER BY CABLE REPORT OR BY CAMERA FIRING SIGNALS RECORDED ON THE MRS DATA TAPE. 25X1

4. THE DATA TAPE SHOULD INCLUDE AT LEAST THE FOLLOWING ITEMS

DISTRIBUTION		
Cy No.	Office	Action
1	File	
	Cable Sec.	25X1
	PP&B	
	Security	
	TSSG	3,45
6,7	PSG	
	IEG	
	IAS	
	DIAX-4	
	SPAD	25X1
8,9	DIAX-4	

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 FOR MENSURATION ON EACH FRAME OF IMAGERY:

A. BAROMETRIC ALTITUDE WITH "D" VALUE PRESSURE CORRECTION TO ALTITUDE ABOVE SEA LEVEL.

B. RADAR ALTITUDE (WHEN RECORDED).

C. GROUND TRACK VELOCITY.

D. VEHICLE TO GROUND ROLL, VEHICLE TO GROUND PITCH, VEHICLE TO GROUND YAW.

E. VELOCITY OVER SLANT RANGE RATIO AT WHICH THE CAMERAS OPERATED.

F. GROUND TRACK AZIMUTH OF VEHICLE NADIR LINE. IF THIS IS NOT AVAILABLE, VEHICLE HEADING CAN BE SUBSTITUTED.

G. LATITUDE AND LONGITUDE OF VEHICLE NADIR.

H. TIME, ACCURATE TO 0.1 SECOND (RECORD IN GREENWICH MEAN TIME OR MISSION ELAPSED TIME AND PROVIDE A METHOD TO CONVERT FROM ONE TO THE OTHER).

I. CAMERA TO VEHICLE ROLL, CAMERA TO VEHICLE PITCH, CAMERA TO VEHICLE YAW.

J. SHUTTER VELOCITY FOR THE TECHNICAL OBJECTIVE CAMERA.

K. SCAN RATE FOR THE OPERATIONAL OBJECTIVE CAMERA.

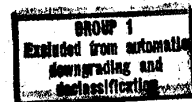
OTHER ITEMS RECORDED ON THE MRS TAPE WILL ASSIST IN PLOTTING THE

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 With Text

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 MISSION AND DETERMINING THE ACCURACY OF THE ABOVE 16 PARAMETERS. SOME ITEMS (E.G., CAMERA MODE AND POINTING ANGLE) DESIRABLE TO NPIC ARE NOT RECORDED ON THE MRS TAPE BUT COULD POSSIBLY BE ADDED. THESE ITEMS REQUIRE FURTHER DEFINITION BY MRS PERSONNEL BEFORE [] CAN SAY WHETHER THE PARAMETERS ARE REQUIRED. 25X1

5. DISCUSSIONS WILL HAVE TO BE CARRIED OUT BETWEEN [] AND SAC (BEALE AFB) TO SOLVE THE TECHNICAL PROBLEMS OF SUPPLYING THE DATA. THE SUBJECT WAS DISCUSSED INFORMALLY BETWEEN [] AND BEALE PERSONNEL DURING THE NICE GIRL EXERCISE. THE ACTUAL RELAY OF 25X1

SECRET

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MRS DATA WOULD BE QUICKEST AND EASIEST BY UNIVAC 1004 DATA LINK.
THE FORMAT TO BE TRANSMITTED VIA THE 1004 CAN BE WORKED OUT BY
[REDACTED] AND SAC.

25X1

25X1

6. TO SUMMARIZE, [REDACTED] HAS A NEED FOR DATA RECORDED BY THE
MRS ON SR-71 MISSIONS. AT THE PRESENT TIME, NO PROCEDURE EXISTS
TO TRANSMIT THE DATA TO [REDACTED] REQUESTS THAT A REQUIREMENT
BE ISSUED TO SUPPLY THIS DATA IN A TIMELY MANNER FOR EACH MISSION.
AFTER THIS REQUIREMENT IS ISSUED, [REDACTED] AND SAC CAN WORK OUT
THE TECHNICAL ASPECTS OF THE TRANSMISSION TO THEIR SATISFACTION.
IT IS DESIRED THAT A COMPLETE TRANSMISSION PROCEDURE BE DEVELOPED
PRIOR TO ANY IMPENDING ACTIVITY.

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END OF MESSAGE

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